> This Raw Listing contains the General Information
> Section and up to first 5 pages.

ENTERED

```
 1    <110> APPLICANT: Barnett, Susan
 2          Zur Megede, Jan
 3    <120> TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
 4          POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
 5    <130> FILE REFERENCE: 1631.002
 6    <140> CURRENT APPLICATION NUMBER: US/09/475,704
 7    <141> CURRENT FILING DATE: 1999-12-30
 8    <150> EARLIER APPLICATION NUMBER: 60/152,195
 9    <151> EARLIER FILING DATE: 1999-09-01
10    <160> NUMBER OF SEQ ID NOS: 29
11    <170> SOFTWARE: PatentIn Ver. 2.0
12    <210> SEQ ID NO 1
13    <211> LENGTH: 60
14    <212> TYPE: DNA
15    <213> ORGANISM: Human immunodeficiency virus
16    <400> SEQUENCE: 1
17          gacatcaagc agggccccaa ggagcccttc cgcgactacg tggaccgctt cttcaagacc 60
18    <210> SEQ ID NO 2
19    <211> LENGTH: 60
20    <212> TYPE: DNA
21    <213> ORGANISM: Human immunodeficiency virus
22    <400> SEQUENCE: 2
23          gacatccgcc agggccccaa ggagcccttc cgcgactacg tggaccgctt cttcaagacc 60
24    <210> SEQ ID NO 3
25    <211> LENGTH: 1479
26    <212> TYPE: DNA
27    <213> ORGANISM: Artificial Sequence
28    <220> FEATURE:
29    <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic Gag
30          of HIV strain AF110965
31    <400> SEQUENCE: 3
32          atgggcgccc gcgccagcat cctgcgcggc ggcaagctgg acgcctggga gcgcatccgc 60
33          ctgcgccccg gcggcaagaa gtgctacatg atgaagcacc tggtgtgggc cagccgcgag 120
34          ctggagaagt cgccctgaa ccccggcctg ctggagacca gcgagggctg caagcagatc 180
35          atccgccagc tgcaccccgc cctgcagacc ggcagcgagg agctgaagag cctgttcaac 240
36          accgtggcca ccctgtactg cgtgcacgag aagatcgagg tccgcgacac caaggaggcc 300
37          ctggacaaga tcgaggagga gcagaacaag tgccagcaga agatccagca ggccgaggcc 360
38          gccgacaagg gcaaggtgag ccagaactac cccatcgtgc agaacctgca gggccagatg 420
39          gtgcaccagg ccatcagccc ccgcaccctg aacgcctggg tgaaggtgat cgaggagaag 480
40          gccttcagcc ccgaggtgat ccccatgttc accgccctga gcgagggcgc cacccccag 540
41          gacctgaaca cgatgttgaa caccgtgggc ggccaccagg ccgccatgca gatgctgaag 600
42          gacaccatca cgaggaggc cgccgagtgg gaccgcgtgc accccgtgca cgccggcccc 660
43          atcgcccccg gccagatgcg cgagccccgc ggcagcgaca tcgccggcac caccagcacc 720
44          ctgcaggagc agatcgcctg gatgaccagc aaccccccca tccccgtggg cgacatctac 780
```

```
45        aagcggtgga tcatcctggg cctgaacaag atcgtgcgga tgtacagccc cgtgagcatc 840
46        ctggacatca agcagggccc caaggagccc ttccgcgact acgtggaccg cttcttcaag 900
47        accctgcgcg ccgagcagag cacccaggag gtgaagaact ggatgaccga caccctgctg 960
48        gtgcagaacg ccaaccccga ctgcaagacc atcctgcgcg ctctcggccc cggcgccagc 1020
49        ctggaggaga tgatgaccgc ctgccagggc gtgggcggcc ccagccacaa ggcccgcgtg 1080
50        ctggccgagg cgatgagcca ggccaacacc agcgtgatga tgcagaagag caacttcaag 1140
51        ggcccccggc gcatcgtcaa gtgcttcaac tgcggcaagg agggccacat cgcccgcaac 1200
52        tgccgcgccc cccgcaagaa gggctgctgg aagtgcggca aggagggcca ccagatgaag 1260
53        gactgcaccg agcgccaggc caacttcctg ggcaagatct ggcccagcca caagggccgc 1320
54        cccggcaact tcctgcagag ccgcccccgag cccaccgccc cccccgccga gagcttccgc 1380
55        ttcgaggaga ccacccccgg ccagaagcag gagagcaagg accgcgagac cctgaccagc 1440
56        ctgaagagcc tgttcggcaa cgaccccctg agccagtaa                        1479
57   <210> SEQ ID NO 4
58   <211> LENGTH: 1509
59   <212> TYPE: DNA
60   <213> ORGANISM: Artificial Sequence
61   <220> FEATURE:
62   <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic Gag
63        of HIV strain AF110967
64   <400> SEQUENCE: 4
65        atgggcgccc gcgccagcat cctgcgcggc gagaagctgg acaagtggga gaagatccgc 60
66        ctgcgccccg gcggcaagaa gcactacatg ctgaagcacc tggtgtgggc cagccgcgag 120
67        ctggagggct tcgccctgaa ccccggcctg ctggagaccg ccgagggctg caagcagatc 180
68        atgaagcagc tgcagcccgc cctgcagacc ggcaccgagg agctgcgcag cctgtacaac 240
69        accgtggcca ccctgtactg cgtgcacgcc ggcatcgagg tccgcgacac caaggaggcc 300
70        ctggacaaga tcgaggagga gcagaacaag tcccagcaga gacccagca ggccaaggag 360
71        gccgacggca aggtgagcca gaactacccc atcgtgcaga acctgcaggg ccagatggtg 420
72        caccaggcca tcagccccccg caccctgaac gcctgggtga aggtgatcga ggagaaggcc 480
73        ttcagccccg aggtgatccc catgttcacc gccctgagcg agggcgccac cccccaggac 540
74        ctgaacacga tgttgaacac cgtgggcggc caccaggccg ccatgcagat gctgaaggac 600
75        accatcaacg aggaggccgc cgagtgggac cgcctgcacc ccgtgcaggc cggccccgtg 660
76        gcccccggcc agatgcgcga cccccgcggc agcgacatcg ccggcgccac cagcaccctg 720
77        caggagcaga tcgcctggat gaccagcaac cccccccgtgc ccgtgggcga catctacaag 780
78        cggtggatca tcctgggcct gaacaagatc gtgcggatgt acagccccgt gagcatcctg 840
79        gacatccgcc agggcccccaa ggagcccttc gcgactacg tggaccgctt cttcaagacc 900
80        ctgcgcgccg agcaggccac ccaggacgtg aagaactgga tgaccgagac cctgctggtg 960
81        cagaacgcca accccgactg caagaccatc ctgcgcgctc tcggcccccgg cgccaccctg 1020
82        gaggagatga tgaccgcctg ccagggcgtg ggcggcccccg gccacaaggc ccgcgtgctg 1080
83        gccgaggcga tgagccaggc caacagcgtg aacatcatga tgcagaagag caacttcaag 1140
84        ggcccccggc gcaacgtcaa gtgcttcaac tgcggcaagg agggccacat cgccaagaac 1200
85        tgccgcgccc cccgcaagaa gggctgctgg aagtgcggca aggagggcca ccagatgaag 1260
86        gactgcaccg agcgccaggc caacttcctg ggcaagatct ggcccagcca caagggccgc 1320
87        cccggcaact tcctgcagaa ccgcagcgag cccgccgccc ccaccgtgcc caccgccccc 1380
88        cccgccgaga gcttccgctt cgaggagacc acccccgccc ccaagcagga gcccaaggac 1440
89        cgcgagccct accgcgagcc cctgaccgcc ctgcgcagcc tgttcggcag cggccccctg 1500
90        agccagtaa                                                        1509
91   <210> SEQ ID NO 5
92   <211> LENGTH: 141
93   <212> TYPE: DNA
94   <213> ORGANISM: Artificial Sequence
```

OIPE

Input Set: **I475704.RAW**

```
 95    <220> FEATURE:
 96    <223> OTHER INFORMATION: Description of Artificial Sequence: Env common
 97          region of HIV strain AF110968
 98    <400> SEQUENCE: 5
 99          accatcacca tcacctgccg catcaagcag atcatcaaca tgtggcagaa ggtgggccgc  60
100          gccatgtacg ccccccccat cgccggcaac ctgacctgcg agagcaacat caccggcctg 120
101          ctgctgaccc gcgacggcgg c                                          141
102    <210> SEQ ID NO 6
103    <211> LENGTH: 1431
104    <212> TYPE: DNA
105    <213> ORGANISM: Artificial Sequence
106    <220> FEATURE:
107    <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
108          gp120 coding region of HIV strain AF110968
109    <400> SEQUENCE: 6
110          agcgtggtgg gcaacctgtg ggtgaccgtg tactacggcg tgcccgtgtg gaaggaggcc   60
111          aagaccaccc tgttctgcac cagcgacgcc aaggcctacg agaccgaggt gcacaacgtg  120
112          tgggccaccc acgcctgcgt gcccaccgac cccaaccccc aggagatcgt gctggagaac  180
113          gtgaccgaga acttcaacat gtggaagaac gacatggtgg accagatgca cgaggacatc  240
114          atcagcctgt gggaccagag cctgaagccc tgcgtgaagc tgacccccct gtgcgtgacc  300
115          ctgaagtgcc gcaacgtgaa cgccaccaac aacatcaaca gcatgatcga acagagcaac  360
116          aagggcgaga tgaagaactg cagcttcaac gtgaccaccg agctgcgcga ccgcaagcag  420
117          gaggtgcacg ccctgttcta ccgcctggac gtggtgcccc tgcagggcaa caacagcaac  480
118          gagtaccgcc tgatcaactg caacaccagc gccatcaccc aggcctgccc caaggtgagc  540
119          ttcgacccca tccccatcca ctactgcacc cccgccggct acgccatcct gaagtgcaac  600
120          aaccagacct tcaacggcac cggcccctgc aacaacgtga gcagcgtgca gtgcgcccac  660
121          ggcatcaagc ccgtggtgag cacccagctg ctgctgaacg gcagcctggc caagggcgag  720
122          atcatcatcc gcagcgagaa cctggccaac aacgccaaga tcatcatcgt gcagctgaac  780
123          aagcccgtga agatcgtgtg cgtgcgcccc aacaacaaca cccgcaagag cgtgcgcatc  840
124          ggccccggcc agaccttcta cgccaccggc gagatcatcg gcgacatccg ccaggcctac  900
125          tgcatcatca acaagaccga gtggaacagc accctgcagg gcgtgagcaa gaagctggag  960
126          gagcacttca gcaagaaggc catcaagttc gagcccagca gcggcggcga cctggagatc 1020
127          accacccaca gcttcaactg ccgcggcgag ttcttctact gcgacaccag ccagctgttc 1080
128          aacagcacct acagccccag cttcaacggc accgagaaca agctgaacgg caccatcacc 1140
129          atcacctgcc gcatcaagca gatcatcaac atgtggcaga aggtgggccg cgccatgtac 1200
130          gcccccccca tcgccggcaa cctgacctgc gagagcaaca tcaccggcct gctgctgacc 1260
131          cgcgacggcg gcaagaccgg ccccaacgac accgagatct tccgcccccgg cggcggcgac 1320
132          atgcgcgaca actggcgcaa cgagctgtac aagtacaagg tggtggagat caagcccctg 1380
133          ggcgtggccc ccaccgaggc caagcgccgc gtggtggagc gcgagaagcg c            1431
134    <210> SEQ ID NO 7
135    <211> LENGTH: 1944
136    <212> TYPE: DNA
137    <213> ORGANISM: Artificial Sequence
138    <220> FEATURE:
139    <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
140          gp140 coding region of HIV strain AF110968
141    <400> SEQUENCE: 7
142          agcgtggtgg gcaacctgtg ggtgaccgtg tactacggcg tgcccgtgtg gaaggaggcc   60
143          aagaccaccc tgttctgcac cagcgacgcc aaggcctacg agaccgaggt gcacaacgtg  120
144          tgggccaccc acgcctgcgt gcccaccgac cccaaccccc aggagatcgt gctggagaac  180
```

```
145        gtgaccgaga acttcaacat gtggaagaac gacatggtgg accagatgca cgaggacatc 240
146        atcagcctgt gggaccagag cctgaagccc tgcgtgaagc tgacccccct gtgcgtgacc 300
147        ctgaagtgcc gcaacgtgaa cgccaccaac aacatcaaca gcatgatcga caacagcaac 360
148        aagggcgaga tgaagaactg cagcttcaac gtgaccaccg agctgcgcga ccgcaagcag 420
149        gaggtgcacg ccctgttcta ccgcctggac gtggtgcccc tgcagggcaa caacagcaac 480
150        gagtaccgcc tgatcaactg caacaccagc gccatcaccc aggcctgccc caaggtgagc 540
151        ttcgacccca tccccatcca ctactgcacc cccgccggct acgccatcct gaagtgcaac 600
152        aaccagacct tcaacggcac cggcccctgc aacaacgtga gcagcgtgca gtgcgcccac 660
153        ggcatcaagc ccgtggtgag cacccagctg ctgctgaacg gcagcctggc caagggcgag 720
154        atcatcatcc gcagcgagaa cctggccaac aacgccaaga tcatcatcgt gcagctgaac 780
155        aagcccgtga agatcgtgtg cgtgcgcccc aacaacaaca cccgcaagag cgtgcgcatc 840
156        ggccccggcc agaccttcta cgccaccggc gagatcatcg gcgacatccg ccaggcctac 900
157        tgcatcatca acaagaccga gtggaacagc accctgcagg gcgtgagcaa gaagctggag 960
158        gagcacttca gcaagaaggc catcaagttc gagcccagca gcggcggcga cctggagatc 1020
159        accacccaca gcttcaactg ccgcggcgag ttcttctact gcgacaccag ccagctgttc 1080
160        aacagcacct acagccccag cttcaacggc accgagaaca agctgaacgg caccatcacc 1140
161        atcacctgcc gcatcaagca gatcatcaac atgtggcaga aggtgggccg cgccatgtac 1200
162        gcccccccca tcgccggcaa cctgacctgc gagagcaaca tcaccggcct gctgctgacc 1260
163        cgcgacggcg gcaagaccgg ccccaacgac accgagatct tccgcccccgg cggcggcgac 1320
164        atgcgcgaca actggcgcaa cgagctgtac aagtacaagg tggtggagat caagcccctg 1380
165        ggcgtggccc ccaccgaggc caagcgccgc gtggtggagc gcgagaagcg cgccgtgggc 1440
166        atcggcgccg tgttcctggg cttcctgggc gccgccggca gcaccatggg cgccgccagc 1500
167        atcaccctga ccgtgcaggc ccgcctgctg ctgagcggca tcgtgcagca gcagaacaac 1560
168        ctgctgcgcg ccatcgaggc ccagcagcac ctgctgcagc tgaccgtgtg gggcatcaag 1620
169        cagctgcaga cccgcatcct ggccgtggag cgctacctga aggaccagca gctgctgggc 1680
170        atctggggct gcagcggcaa gctgatctgc accaccgccg tgccctggaa cagcagctgg 1740
171        agcaaccgca gccacgacga gatctgggac aacatgacct ggatgcagtg ggaccgcgag 1800
172        atcaacaact acaccgacac catctaccgc ctgctggagg agagccagaa ccagcaggag 1860
173        aagaacgaga aggacctgct ggccctggac agctggcaga acctgtggaa ctggttcagc 1920
174        atcaccaact ggctgtggta catc                                          1944
175    <210> SEQ ID NO 8
176    <211> LENGTH: 2466
177    <212> TYPE: DNA
178    <213> ORGANISM: Artificial Sequence
179    <220> FEATURE:
180    <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
181        gp160 coding region of HIV strain AF110968
182    <400> SEQUENCE: 8
183        agcgtggtgg gcaacctgtg ggtgaccgtg tactacggcg tgcccgtgtg gaaggaggcc 60
184        aagaccaccc tgttctgcac cagcgacgcc aaggcctacg agaccgaggt gcacaacgtg 120
185        tgggccaccc acgcctgcgt gcccaccgac cccaaccccc aggagatcgt gctggagaac 180
186        gtgaccgaga acttcaacat gtggaagaac gacatggtgg accagatgca cgaggacatc 240
187        atcagcctgt gggaccagag cctgaagccc tgcgtgaagc tgacccccct gtgcgtgacc 300
188        ctgaagtgcc gcaacgtgaa cgccaccaac aacatcaaca gcatgatcga caacagcaac 360
189        aagggcgaga tgaagaactg cagcttcaac gtgaccaccg agctgcgcga ccgcaagcag 420
190        gaggtgcacg ccctgttcta ccgcctggac gtggtgcccc tgcagggcaa caacagcaac 480
191        gagtaccgcc tgatcaactg caacaccagc gccatcaccc aggcctgccc caaggtgagc 540
192        ttcgacccca tccccatcca ctactgcacc cccgccggct acgccatcct gaagtgcaac 600
193        aaccagacct tcaacggcac cggcccctgc aacaacgtga gcagcgtgca gtgcgcccac 660
194        ggcatcaagc ccgtggtgag cacccagctg ctgctgaacg gcagcctggc caagggcgag 720
```

```
195        atcatcatcc gcagcgagaa cctggccaac aacgccaaga tcatcatcgt gcagctgaac 780
196        aagcccgtga agatcgtgtg cgtgcgcccc aacaacaaca cccgcaagag cgtgcgcatc 840
197        ggccccggcc agaccttcta cgccaccggc gagatcatcg gcgacatccg ccaggcctac 900
198        tgcatcatca acaagaccga gtggaacagc accctgcagg gcgtgagcaa gaagctggag 960
199        gagcacttca gcaagaaggc catcaagttc gagcccagca gcggcggcga cctggagatc 1020
200        accacccaca gcttcaactg ccgcggcgag ttcttctact gcgacaccag ccagctgttc 1080
201        aacagcacct acagccccag cttcaacggc accgagaaca gctgaacgg caccatcacc 1140
202        atcacctgcc gcatcaagca gatcatcaac atgtggcaga aggtgggccg cgccatgtac 1200
203        gcccccccca tcgccggcaa cctgacctgc gagagcaaca tcaccggcct gctgctgacc 1260
204        cgcgacggcg gcaagaccgg ccccaacgac accgagatct tccgcccccgg cggcggcgac 1320
205        atgcgcgaca actggcgcaa cgagctgtac aagtacaagg tggtggagat caagcccctg 1380
206        ggcgtggccc ccaccgaggc caagcgccgc gtggtggagc gcgagaagcg cgccgtgggc 1440
207        atcggcgccg tgttcctggg cttcctgggc ccgccggca gcaccatggg cgccgccagc 1500
208        atcaccctga ccgtgcaggc ccgcctgctg ctgagcggca tcgtgcagca gcagaacaac 1560
209        ctgctgcgcg ccatcgaggc ccagcagcac ctgctgcagc tgaccgtgtg gggcatcaag 1620
210        cagctgcaga cccgcatcct ggccgtggag cgctacctga aggaccagca gctgctgggc 1680
211        atctggggct gcagcggcaa gctgatctgc accaccgccg tgccctggaa cagcagctgg 1740
212        agcaaccgca gccacgacga gatctgggac aacatgacct ggatgcagtg ggaccgcgag 1800
213        atcaacaact acaccgacac catctaccgc ctgctggagg agagccagaa ccagcaggag 1860
214        aagaacgaga aggacctgct ggccctggac agctggcaga acctgtggaa ctggttcagc 1920
215        atcaccaact ggctgtggta catcaagatc ttcatcatga tcgtgggcgg cctgatcggc 1980
216        ctgcgcatca tcttcgccgt gctgagcatc gtgaaccgcg tgcgccaggg ctacagcccc 2040
217        ctgcccttcc agaccctgac ccccaacccc cgcgagcccg accgcctggg ccgcatcgag 2100
218        gaggagggcg gcgagcagga ccgcggccgc agcatccgcc tggtgagcgg cttcctggcc 2160
219        ctggcctggg acgacctgcg cagcctgtgc ctgttcagct accaccgcct gcgcgacttc 2220
220        atcctgatcg ccgcccgcgt gctggagctg ctgggccagc gcggctggga ggccctgaag 2280
221        tacctgggca gcctggtgca gtactggggc ctggagctga agaagagcgc catcagcctg 2340
222        ctggacacca tcgccatcgc cgtggccgag ggcaccgacc gcatcatcga gttcatccag 2400
223        cgcatctgcc gcgccatccg caacatcccc cgccgcatcc gccagggctt cgaggccgcc 2460
224        ctgcag                                                             2466
225  <210> SEQ ID NO 9
226  <211> LENGTH: 2547
227  <212> TYPE: DNA
228  <213> ORGANISM: Artificial Sequence
229  <220> FEATURE:
230  <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
231        signal sequence and gp160 coding region of HIV
232        strain AF110968
233  <400> SEQUENCE: 9
234        atgcgcgtga tgggcatcct gaagaactac cagcagtggt ggatgtgggg catcctgggc 60
235        ttctggatgc tgatcatcag cagcgtggtg ggcaacctgt gggtgaccgt gtactacggc 120
236        gtgcccgtgt ggaaggaggc caagaccacc ctgttctgca ccagcgacgc caaggcctac 180
237        gagaccgagg tgcacaacgt gtgggccacc cacgcctgcg tgcccaccga ccccaacccc 240
238        caggagatcg tgctggagaa cgtgaccgag aacttcaaca tgtggaagaa cgacatggtg 300
239        gaccagatgc acgaggacat catcagcctg tgggaccaga gcctgaagcc ctgcgtgaag 360
240        ctgacccccc tgtgcgtgac cctgaagtgc cgcaacgtga cgccaccaa aacatcaac 420
241        agcatgatcg acaacagcaa caagggcgag atgaagaact gcagcttcaa cgtgaccacc 480
242        gagctgcgcg accgcaagca ggaggtgcac gccctgttct accgcctgga cgtggtgccc 540
243        ctgcagggca acaacagcaa cgagtaccgc ctgatcaact gcaacaccag cgccatcacc 600
244        caggcctgcc ccaaggtgag cttcgacccc atccccatcc actactgcac ccccgccggc 660
```

VERIFICATION SUMMARY
PATENT APPLICATION **US/09/475,704**

Input Set: **I475704.RAW**

Line	?	Error/Warning	Original Text